DOCUMENT RESUME

ED 277 812 CE 045 066

TITLE	Parents as Partners in Reducing Sex-Role Stereotypes in Vocational Education.
INSTITUTION	Wyoming Univ., Laramie. Dept. of Vocational Education.
SPONS AGENCY	Wyoming State Dept. of Education, Cheyenne.
PUB DATE	85
NOTE	51p.; Appendixes A and B are not included.
PUB TYPE	Guides - Non-Classroom Use (055) -- Reports - Descriptive (141)
EDRS PRICE	MF01/PC03 Plus Postage.
DESCRIPTORS	Career Choice; *Change Strategies; Fathers; Mothers; *Parent Education; *Parent Role; Postsecondary Education; School Choice; Secondary Education; Sex Bias; *Sex Stereotypes; *Vocational Education

ABSTRACT

This handbook is intended to assist vocational education teachers and guidance counselors in working with parents to reduce sex-role stereotyping in vocational education and employment. Discussed first are recent developments in the area of ensuring equity in vocational education and parent involvement in career decisions. A list of pertinent definitions is provided. The next sections examine the issues of family influence, assumed male and female characteristics, and sex bias in the language. Covered in a section on legislation pertaining to equity in education are Title IX of the Education Amendments of 1972, the Women's Educational Equity Act of the Education Amendments of 1974, the Vocational Education Act as amended by the Education Amendments of 1976, and the Carl D. Perkins Vocational Education Act of 1984. The rationale for equity in educational and employment opportunities and pertinent trends in employment patterns and enrollments in vocational education programs are examined. The next section, which sets forth a model of career choice as a developmental process, includes specific goals for sex-fair career education activities at the K-6, 7-8, 9-10, 11-12, and postsecondary grade levels. The occupations included in the 15 career cluster areas of vocational education are listed. Concluding the guide are lists of actions that teachers can take to eliminate sex-role stereotyping in vocational programs and to counsel parents in how to work to eliminate sex bias. (A final project report detailing the procedures followed in developing the handbook is included.) (MN)

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PARENTS AS PARTNERS

IN REDUCING SEX-ROLE STEREOTYPES IN VOCATIONAL EDUCATION

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CE045066

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This handbook was developed and published under a contractual agreement between the Wyoming State Department of Education, Vocational Programs Unit, Hathaway Building, Cheyenne, WY, 82002, and the University of Wyoming, Department of Vocational Education, Laramie, WY, 82071. Opinions expressed in this handbook do not reflect, nor should they be construed as, policy of the Wyoming State Department of Education or of its staff.

PARENTS AS PARTNERS IN REDUCING SEX-ROLE STEREOTYPING IN VOCATIONAL EDUCATION

Purpose of the Handbook

The purpose of this handbook, Parents as Partners in Reducing Sex-Role Stereotyping in Vocational Education, is to assist vocational education teachers and guidance counselors in effectively working with parents to reduce sex-role stereotyping in vocational education and employment. In the Equality State, the reduction of barriers to education, training, and employment based upon sex-role stereotypes should be a high priority. Allowing access to quality vocational education programs for females and males regardless of the traditional gender composition of the work force in the occupational area of training is necessary to meet the constitutional guarantees of equity.

While this handbook is intended to assist teachers in assisting parents in reducing/eliminating barriers, it should not be viewed as a document aimed at changing the mores of any of the family sub-cultures in Wyoming. In the Equality State, the "cultural" and "ethnic" rights of families are guaranteed within the limits of the law. Therefore, school personnel using this handbook should be cautious not to intrude on families, but work with parents and families in a partnership to improve education, training, employment, and life for all.

Background

There is considerable evidence that by the time children enter school, they have already acquired stereotyped attitudes about "appropriate" behaviors for males and females through the training they have received from their parents. These early attitudes and roles are perpetuated and reinforced through the students' subsequent school experiences. For example, Levy (1972), in her review of research literature on the school's role in elaborating and reinforcing sex roles, finds that as children grow older their awareness of "appropriate" sex-role behavior increases and becomes more restricted and stereotyped. Other writers document the lack of adequate, occupational role models for young women (Verheyden-Hilliard, 1975; Mitchell, 1977) or differential treatment of male and female students by teachers in the schools (Spaulding, 1963). Consequently, it is not surprising to find that by the time they are in high school, young men and women differ in their anticipated occupational choices and levels of aspiration. Marini (1978) in reviewing the research on adolescent aspirations reports the general conclusions that adolescent boys aspire to a higher level of education than girls and that the planned occupational choices of the two sexes are highly sex-stereotyped.

While much has happened in the past six years to assure equity in vocational education, reducing sex-role stereotyping and sex bias in vocational education continues to need attention. Many of the occupations that have traditionally been male or female continue to have a majority of males or females employed in those occupations. This is also the case in vocational education programs. More males are in vocational education programs for traditionally male occupations and likewise, females in traditional female occupations. It has been difficult to break down some of the societal barriers and stereotypes concerning sex roles for specific occupations. These "barriers" need to be dealt with to effectively reduce sex-role stereotyping in education, training, and employment.

An emerging purpose for federal involvement in vocational education has been to reduce sex-role stereotyping and sex bias in education, training, and employment. This federal purpose was specified with the enactment of Public Law 94-482 (The Education Amendments of 1976) with specific provisions for states to designate a state level administrator for sex equity. This emphasis has been retained in the Carl D. Perkins Vocational Education Act (P.L. 98-524).

Parent Involvement in Career Decisions

Recent research reports have indicated that parents of high school students are the most influential individuals in developing the future educational and occupational plans for their children. A New York project conducted by Mary Ott (1978) on high school sex-role stereotyping revealed that those students enrolled in traditional courses for their sex stated that parents were extremely important in influencing their occupational program. Mills' (1980) study also revealed the parents as the primary sources of influence on the selection of careers/courses.

Specifically, the High School and Beyond Study (HSB, 1980) reported that the "mother" was the single most influential person in developing the student's future career and educational plans as reported by a sample of over 50,000 high school sophomores and seniors nationwide. School counselors and teachers were much less influential in developing the plans of students. Likewise, other studies (Haber, 1980; Stevens and Boyd, 1980; Auster and Auster, 1981; Falkowski and Falk, 1983) arrived at such conclusions as: ". . .the mother's attitudes and beliefs were the major factors in determining career choice and commitment" and "women whose mothers worked are more likely to join the labor force and their occupations are likely to resemble their mothers'."

An ERIC Clearinghouse on Adult, Career and Vocational Education Fact Sheet reported that in rural areas "parents have an enormous influence on the career choice of their children as compared to urban areas." This finding is generally due to closer family ties and the lack of diversity in occupations in rural settings. Parental influence in career plans and decision-making in rural settings is a factor that should be dealt with in Wyoming--a rural state.

Parents have a significant amount of influence in the development of the career and educational plans of high school students. Several studies have analyzed the beginnings of occupational orientation and possible stereotyping in the lives of males and females. One such study conducted by Navin and Sears (1980) indicated that career development starts early in childhood and continues throughout life, with parents being a significant factor in this developmental process. As the child spends a large portion of his/her formative years with parents, the child uses these individuals as his/her sole references for the "typical" male or female role. Lavine (1982) concluded that "children ages 7-11 display a tendency to see occupations as being limited to one sex exclusively," and they are strongly influenced by their parents' own occupations, beliefs, and attitudes. This is not unusual--due to their limited access to adult role models. Even up to college, the parents exert influence on the vocational choice of their children. Venerable (1974) reports in a survey of 300 freshmen college students on the perceived influence of the parents on vocational choice, that while students felt they ultimately made their own vocational choice, most "sought parental advice on important issues."

In this planning/decision-making, parents <u>may</u> tend to perpetuate the traditional sex roles in occupations and in training for those occupations. Therefore, to effectively change the traditional sex-role stereotypes in employment and training in the state of Wyoming, vocational education teachers need to work with the parents of Wyoming high school students to reduce these stereotypes.

Definitions

Sex Bias: Behaviors resulting from the assumption that one sex is superior to the other.

Sex Discrimination: Any action which limits of denies a person or group of persons opportunities, privileges, roles or rewards on the basis of their sex.

Sex-Role Stereotyping: Attributing behaviors, abilities, interests, values and roles to a person or group of persons on the basis or their sex.

Occupational Sex-Role Stereotypes: Those in which specific occupations are linked, and believed to be appropriate, to members of one or the other sex.

Equity: Moving beyond discrimination--reforming and improving; based on concepts of fairness, justice--a right recognized and enforced.

Equality: The quality or state of being equal.

Sex Fairness: Treating both sexes in the same manner.

Nontraditional Worker: A person employed in an occupational area once considered appropriate for the opposite sex.

Displaced Homemakers: A person that is the product of the transformation in the structure of the American family. They are primarily middle-aged and older women who, through death, divorce, or separation, must pursue a career outside their homes.

Sexism: The word was coined by analogy to racism, to denote discrimination based on gender. In its original sense, sexism referred to prejudice against the female sex. In a broader sense, the term now indicates any arbitrary stereotyping of males and females on the basis of their gender.

Sexist: Advocate or supporter of sexism. All those attitudes and actions which relegate women to a secondary and inferior status in society.

Racist: Advocate or supporter of racism, a belief that race is the primary determinant of human traits and capacities and that racial differences produce an inherent superiority of a particular race.

Feminist: Advocate or supporter of feminism, which is the theory that women should have political, economic and social rights equal to those of men; also the movement to win such rights for women.

Feminism: That work is as significant to women as it is to men, that marriage ought to be a partnership of equals, that women ought to be financially independent, that child bearing and child rearing is not a woman's only or most important or even necessary role, and that family responsibilities ought to be divided between women and men.

MS: Used as a conventional title of courtesy instead of Mrs. or Miss except when usage requires the substitution of a title or rank or an honorific or professional title before a woman's name. Note: The Correspondence Section of the White House prefixes the courtesy title Ms. before a woman's name unless a rank, honorific or professional title is used--General Mary Jones, Ms. Ann Jones, Dr. Mara Jones.

Change Agent: Those persons who desire to participate in, and often instigate, institutional change processes through strategic risk taking and calculated planning. Also those persons who are called upon to work and live in vanguard positions in order to model new behaviors that affect persons and institutions.

PARENTAL INFLUENCE

Parents have great influence on the growth and development of their offspring. This includes influence on educational and career plans. Teachers need to be aware of these influences when working with students in education for employment.

Family Background

Numerous studies have examined family background factors that relate to the career plans of students. Studies relating to educational and occupational aspirations document the differential effects of socioeconomic background variables on boys and girls. This research reports that father's and mother's education and father's occupation are positively related to the educational and occupational aspirations of boys (Sewell & Shah, 1968; Marini & Greenberger, 1978). Girls from families of higher socioeconomic status also aspire to higher educational attainment (Marini & Greenberger, 1978). However, since girls generally aspired to a narrow range of less prestigious "female" occupations, the research related to girls' occupational aspirations shows weaker relationships. Consequently, recent studies have concentrated on variables that may have special importance for women, particularl in regard to the choice of career areas that are non-traditional for their sex.

One group of studies focuses on women who plan relatively continuous participation in the labor force, or women who are "career committed" as opposed to home and family oriented. The narrowness of these studies has its base in a pervasive myth about women and work--the Cinderella syndrome. In spite of the growing evidence that women are continuing to work outside the home after marriage and children, a young woman frequently continues to believe that she will only work for a short time until the "Prince comes along to marry her and both live happily ever after." As a result, to counter this myth, researchers have focused on the unusual or atypical woman--the individual who views work as a central feature of her adult life.

For example, Almquist and Angrist (1970) studied the family influences on career-oriented women college students who choose male-dominated occupations. They conclude that the non-traditional, career-oriented woman was more likely to have a mother employed outside the home and to report the influence of an occupational role model. Thus, these women have models, their mothers and others, of a successful combination of marriage and career. The influence of mothers' employment on the career choices of their daughters was also noted by Tangri (1969, 1972). She found that although in most cases neither parent's education related to the selection of a non-traditional career by their male or female children, maternal employment was related to the likelihood of a

daughter working in a high-status occupation. In another study, Klemmack and Edwards (1973) discovered that a mother's employment status was related to a daughter's occupational interest, although it did not predict choice of typically male or female jobs.

One study (Kane, Frazee & Dee, 1976) examined the choices of students in post-secondary vocational training programs. Women were classified as enrolled in traditional (75% - 100% female), non-traditional (0 - 25% female) or mixed programs, based upon the number of women enrolled in these programs across the country. The analysis of the responses of 1,924 women differed from the studies of four-year college women in that no significant differences were found between traditional and non-traditional women in such family background characteristics as parental occupation, education, race or income. However, non-traditional women were more likely to live in urban areas and be older than traditional women.

The only study (Lewis & Kaltreider, 1976) that investigated influences on the choice of a non-traditional vocational program at the secondary level does not detail separate analyses for family background characteristics. However, when any family background variable that had shown a significant relationship with traditional or non-traditional choices was included with other variables in multiple regression analyses of influences on choice of non-traditional programs by male and female students, no significant relationships were found. Only two variables were significant for current and former students when the effects of these other variables were held constant: males in non-traditional curricula were more likely to be non-white, and non-traditional females were more likely to be enrolled in vocational rather than comprehensive high schools. Other variables relating to the family environment were compared for students selecting traditional and non-traditional programs. Students and their parents provided information on the toys that the students played with as children and the household tasks they usually performed. Male and female students definitely reported stereotypic choices of toys and tasks as children. However, these early behaviors were not related to their later choices of traditional and non-traditional programs within each sex group.

In addition to the family background factors described above are the more direct roles that parents play in influencing the children's educational and occupational choices, such as parental opinions about appropriate sex roles and their encouragement or discouragement of a child's career plans. Mitchell (1977) in a study of the attitudes of secondary school girls toward vocational education concluded that parents were the single most influential factor in the career decisions of the girls interviewed. However, the type and direction of this influence were not discussed by the researchers. Other data presented indicated that while these students believed that occupational opportunities for women were broadening, most were considering stereotypically female careers for themselves.

Research studies that examine the career choices of both traditional and non-traditional students also support the importance of parental influence. Kane, Frazee and Dee (1976) in their study of women in post-secondary vocational education programs found that mothers were mentioned most frequently as influencing decisions by both traditional and non-traditional women. In general, non-traditional women were less likely than traditional women to consider any family member or friend important in their selection of training; for example, 73 percent of traditional women named mothers as important compared to 50 percent of non-traditional women. Fathers were less frequently mentioned, but again were rated as more influential by traditional students (56%) than by non-traditional students (44%). After examining these data in relation to the parents' educational and occupational characteristics the authors conclude that:

> Parents apparently provide support and encouragement, but do not actually participate in the decision of whether their daughters pursue non-traditional or traditional occupations. Parents, it would appear, influence their daughters by stimulating their daughters' interest in occupational areas in which the parents themselves were educated and/or employed (p. 47).

However, it was noted that some parents not only influenced their daughters but actively discouraged them from their choices. This discouragement was particularly reported by non-traditional women: they reported that 9 percent of fathers had discouraged their selection of non-traditional training, a rate more than twice that reported by traditional women.

Lewis and Kaltreider (1976) also found that parents were the most frequent source of suggestions about vocational programs and the most frequently named as influential in course selection. This research on secondary school students did not distinguish the separate influence of mothers and fathers. The overall level of parental influence on student decisions, however, was lower than that reported by Kane, Frazee and Dee, approximately one in five students naming parents as the most important influence. The largest number, nearly one-half of both traditional and non-traditional students, felt that no one had influenced them and three-quarters of the students reported no opposition or resistance to their choice. Separate surveys of the students' parents suggested that students are more likely to choose non-traditional courses when their parents encourage the choice. Most parents reported that they were satisfied (43%) or very satisfied (45%) with their child's choice of occupational area regardless of whether the curricula were traditional or non-traditional.

ASSUMED MALE/FEMALE CHARACTERISTICS

Stereotypes are perpetuated through assumptions about others that are often not true. These assumptions are based upon the messages we receive from various sources (e.g., television, magazines). Statements such as "little girls are made of sugar and spice and everything nice" or "little boys are made of snakes and snails and puppy dog tails" lead us to assumptions about the characteristics and capabilities of each sex. These assumptions are based upon a false premise--a statement that is not true.

Consider the following statements and identify the assumptions that they represent.

Statement	Assumptions
1. A woman's place is in the home.	
2. Big boys don't cry.	
3. It must be a woman driver.	
4. Girls really don't need to take math.	
5. Men have no taste.	
6. Women are too emotional under pressure.	
7. Men make the best managers because they don't believe in frills when it comes to running a business.	

Statements that perpetuate false stereotypes have no place in vocational education classrooms and laboratories. In addition, media that is not sex-fair should not be used. All students should be allowed to participate in vocational programs of their choice.

The Words We Use

All too often, the words we use send unintentional messages of sex bias or sex-role stereotyping. Using sex-fair language is the responsibility of everyone, especially teachers. The following examples show the sex-biased words with a corresponding sex-fair word. This list is not totally inclusive, rather it is suggestive of the sex-fair language.

Sex Biased	Sex Fair
Draftsman	Drafter
Foreman	Supervisor
Fireman	Fire Fighter
Policeman	Police Officer
Mankind	Humanity
Man-made	Synthetic, of human origin
Man-sized	Large, sizeable, husky
Founding Fathers	Pioneers, patriots
Gentleman's agreement	Informal agreement, contract
Workman	Employee
Cameraman	Camera Operator
Delivery boy	Delivery Person, Courier
Salesman	Sales Representative, Sales Clerk
Chairman	Chairperson

EQUITY IN EDUCATION: THE LAW

Educational equity means that all students have a right to equal educational opportunities, programs and resources without discriminatory treatment because of stereotyped factors such as their race, sex, economic class, national origin, disability, or age. These rights are guaranteed under the United States Constitution and the Wyoming Constitution.

Although public education in the U.S. has been coeducational for more than a century, the sub-cultures, behaviors, and policies that limit the opportunities and aspirations for females still occur. Oftentimes, unintentional, "messages" are sent to females that reinforce their traditional roles in the educational system and work force of the nation. These messages can be in the form of pictures in books and magazines, the lack of role models in non-traditional settings, the use of sex-biased words, and so forth. These signals, coupled with the lack of encouragement to enter education and employment in non-traditional areas, tend to limit access to careers in math, science, and areas of vocational education for females. These factors also limit access for males to careers in nursing, secretarial science, and so forth.

During the 1970's, women's groups developed legislative strategies to end sexism and sex bias in education, training, and employment. The intent was also to open economic opportunities to women as a result of the elimination of bias in education. The results of these efforts was the enactment of three laws that sought to achieve these goals. The U.S. Department of Education administers these laws, which are: Title IX of the Education Amendments of 1972 (P.L. 92-318); The Women's Educational Equity Act of the Education Amendments of 1974 (P.L. 93-380); the Vocational Education Act as amended by the Education Amendments of 1976 (P.L. 94-482); and the Carl D. Perkins Vocational Education Act of 1984 (P.L. 98-524).

Title IX

Title IX promotes educational equity for females in all federally assisted education programs, including elementary, secondary, and post-secondary education programs (which includes vocational education programs). This law applies to all types of education, including athletic programs, counseling, facilities and extra-curricular activities. This law is probably "best" remembered for its impact on school athletic programs, greatly increasing female participation in sports. Prior to the enactment of this law, 7% of the participants in interscholastic high school sports were females. By 1981, a five-fold increase had occurred. It has also affected "required" junior high school practical arts programs that were restricted to students of one sex (e.g., industrial arts, home economics). Title IX has increased the enrollment of females in junior high industrial arts and males in junior high home economics courses

Compliance with this law has generally been favorable. Females constitute the majority of undergraduate students, mainly due to their enrollments in community colleges, and increasing proportions of degrees at every level. The most significant increases have occurred in the enrollment of females at the graduate and professional schools such as medicine and law.

With respect to employment in educational administration, females were 13% of the school principals in 1974 and only 14% in 1981. And in 1981, females were still less than 1% of the school district superintendents. However the number of women heading colleges and universities increased by 48% between 1975 and 1980.

The Women's Educational Equity Act

The Women's Educational Equity Act was enacted in 1974, and amended in 1978 to promote educational equity for females at all educational levels. The program provides grants and contracts to public agencies and institutions and private and nonprofit organizations to develop materials and model programs to achieve educational equity for females of various racial, ethnic, age, regional, and socioeconomic groups.

In addition, the act also established a Presidentially appointed National Advisory Council on Women's Educational Programs which makes policy recommendations to the Federal Government on educational equity for females. The Council is under the U.S. Department of Education, and its mandate addresses all federal policies and programs affecting women's education.

Since 1975 the Council has completed a number of studies and activities in specific equity-related topic areas: the educational needs of rural females; women's studies programs; education, training, and counseling needs of working women; the educational needs of black women; educational needs of American Indian women; sexual harassment on the campus; and the effectiveness of the Vocational Education Act in serving girls and women.

Vocational Education Act Amendments

The Vocational Education Act amendments enacted in the Education Amendments of 1976 mandate activities to eliminate sex bias, stereotyping, and discrimination in federally funded vocational education programs. They require each state to employ a full-time sex equity coordinator to ensure the elimination of bias and occupational segregation by sex in vocational programs. The Act also calls for the development of a national vocational education data system, to include enrollments by sex and race; authorizes contracts and grants for research and for the development of model programs; permits states to use federal funds for vocational programs for certain categories of adult women, such as displaced

homemakers, part-time workers who want full-time jobs and women who seek nontraditional employment; and requires that Federal grants to states for consumer and homemaking education must be used to support programs and services that encourage participation of both males and females to prepare them for combining the homemaker and wage earner roles.

Carl D. Perkins Vocational Education Act

The Carl D. Perkins Vocational Education Act of 1984 continues and expands sex equity provisions in federal vocational education legislation. The provisions are similar to those in P.L. 94-482, the 1976 amendments. The Perkins Act continues the mandate for one full-time sex equity coordinator to fulfill mandated actions throughout the state. In contrast to the 1976 amendments, the Perkins Act provides targeted financial resources necessary to meet the vocational needs of women and to reduce sex-role stereotyping and sex bias in vocational education. This is accomplished through two setasides in the Perkins Act; one for single parents and homemakers (Title II, Part A, Section 201 [f]), and for sex equity programs (Title II, Part A, Section [g]). These two efforts are to be administered by the sex-equity coordinator which will shift the role of the federally-mandated coordinator from a direct provider of training and technical assistance to a manager of training, technical assistance and vocational services. The new act also calls for 50% of the funds for Title II, Part C, Adult Training and Retraining, to be spent on single parents and homemakers, and 20% of the guidance and counseling funds (Title II, Part D) to be used for programs to eliminate sex, age, and race bias. The sex equity provisions should be viewed as integral to the entire Act. They create the opportunity to achieve the overriding purposes of the Act which can be synthesized into three new and effective approaches:

I. To develop people.
II. To develop and improve programs.
III. To increase productivity and foster economic growth.

The sex equity provisions are described below in the context of these three purposes.

I. To Develop People

A. The sex equity provisions enable vocational education to develop STUDENTS by:

1. Requiring that 8.5% of a state's basic grant and 50% of Title III, Part C, Adult Training, Retraining and Employment Development, fund programs, services and activities which will enable single parents and homemakers to gain marketable skills.

2. Requiring that 3.5% of a state's basic grant fund programs, services, and activities designed to eliminate sex bias and stereotyping, and thus expand the career options of both men and women, and/or enable girls and women aged 14-25 to support themselves.

3. Requiring that the sex equity coordinator develop programs of outreach and information to women concerning vocational education and employment opportunities especially in new, emerging and high technology occupations.

4. Requiring funding of guidance and counseling activities designed to eliminate bias and stereotyping on the basis of race, sex, and/or disability.

B. The sex equity provisions enable vocational education to develop STAFF by:

1. Requiring that the sex equity coordinator provide technical assistance and advice to local education agencies to help them expand vocational opportunities for women and implement programs and activities to increase access for women to vocational education and increase male and female enrollment in nontraditional occupational programs.

2. Requiring that part of the 3.5% of the basic grant to be spent on staff development activities which enhance the ability of staff to address sex equity and nontraditional enrollees, and/or which eliminate barriers to career upward mobility within the vocational system.

II. To Develop and Improve Programs

A. The sex equity provisions strengthen vocational education's ability to develop PROGRAMS by:

1. Providing the financial resources under the 8.5% setaside to allow for the development or expansion of vocational programs and/or activities as long as these programs furnish single parents and homemakers with marketable skills.

B. The sex equity provisions strengthen vocational education's ability to improve PROGRAMS by:

1. Requiring that the sex equity coordinator gather, analyze and disseminate data on the adequacy and effectiveness of vocational education programs in meeting the educational and employment needs of women. . .and on the status of men and women students and employees in such programs.

2. Requiring that the sex equity coordinator review vocational education programs for sex stereotyping and bias, and review grants, contracts and policies to ensure that the needs of women are met.

III. To Increase Productivity and Foster Economic Growth

A. The sex equity provisions foster PRODUCTIVITY and ECONOMIC GROWTH by:

1. Providing financial resources under the 3.5% setaside for employer-linked training which provides women and men with nontraditional occupational skills.
2. Providing financial resources under the 8.5% setaside to fund programs and activities which assist single parents and/or homemakers to develop home-based or small businesses.
3. Providing the language in Title II, Part E--Industry-Education Partnerships which assures that all segments of the population are served under this provision.

The sex equity provisions emphasize three themes: 1. Assisting single parents, homemakers, and young women to obtain marketable skills; 2. Creating greater access by women to a broad range of occupations, especially those related to high technology; and 3. Reducing the limiting effects of sex role stereotyping. Programs, services and activities should focus on these themes, with the heaviest emphasis on assisting single parents, homemakers and young women to obtain marketable skills.

Activities could include: comprehensive services to displaced homemakers and teen parents, with an emphasis on vocational counseling, career exploration and decision making, training and placement, recruitment, counseling and retention activities, including support groups and pre-enrollment courses, with an emphasis on technical and non-traditional programs, direct payments to eligible individuals for tuition, child care, and/or transportation costs, technical assistance and support services to single parents and homemakers who want to develop home-based or small businesses, employer-linked training leading to placement of women into nontraditional jobs, a Sex Equity Resource Center to provide technical assistance to sub-recipients, develop and disseminate curriculum guides and other sex-fair resource material, and conduct research which has practical application, mini-grants to local school districts to address locally identified needs relative to promoting sex equity, and a statewide program to identify and tap the talents of women who have the potential for upward mobility, and to address sex bias and stereotyping among the VTAE staff as it relates to career development and upward mobility.

WHY EQUITY?

Sex Equity is about fairness--it does not mean that males and females should all be the same, but simply that students should have equal opportunity and educational services according to their own abilities and interests, not because they are "girls" or "boys." Today, we can not have a double standard in our schools, one for females and another for males. This is no more acceptable than having different standards for different races or ethnic groups.

Our society, nation and world are rapidly changing. Technological advances will continue to affect the way we learn, work and play. Today, approximately 90% of the females in America work in the paid labor force at some time during their lives. Single-parent families are increasing. Women are living longer than men, spending many years alone, without financial support.

The world of the future will show even more changes. Both women and men want and need to be able to support their families adequately and to have some caring, human time as well. Our old stereotypes about males and females no longer apply and in the future they will apply even less. If we are going to do a good job as educators, we need to prepare our students for the world they will be facing as they grow up and raise their own families.

Some of the problems that we face in Wyoming in terms of sex-role stereotyping and sex bias include the following:

Many males and females believe that only certain jobs are right for females and that other jobs are right for males. This influences the ways in which they prepare themselves for jobs or careers, and the jobs or careers in which they seek employment.

Some employers hire workers based on stereotyped ideas by refusing to hire qualified persons in jobs which are not traditional for their sex, or by paying employees of one sex less than the other for the same work.

Sex-role stereotypes are propagated in many ways. Often we are not even aware of these stereotypes and we accept them as facts or reality. Peers, parents, television, cartoons, advertisements, movies, textbooks, and storybooks are among the media that can propagate stereotypes.

Due to the low population of the state and the limited diversity of occupations in the labor market, Wyoming seldom offers exposure to role models of females in traditionally male occupations or males in traditionally female occupations. The lack of role models and the rural nature of the state can perpetuate stereotypes.

Sex-role stereotyping and sex bias are realities in Wyoming and surrounding states. They must be dealt with through effective educational efforts to allow all citizens access to education, training and employment of their choice regardless of gender.

EMPLOYMENT TRENDS

As our nation makes the transition from an industrial to an information society, several changes and trends will continue in the workforce. For example, females currently represent 42.8% of total employment in America (Bureau of Labor Statistics, U.S. Department of Labor). Females as a percentage of the workforce has grown from 20% in 1900 to 42.8% in 1982. It is projected that females will make up 50% of the workforce by the year 2000. (less than 15 years from now!)

The entry of females into the paid workforce is a phenomenon that is unique to this century. Some of the factors that lead to the increase of females in the paid workforce include:

a. Increase in divorce rate
b. Increase in single living of young adults
c. Increase in level of education
d. Decline in birth rate
e. Change in social acceptance of women in the workforce (e.g., workers needed for war effort in WWII)
f. Effects of inflation on family standard of living
g. Need for personal satisfaction from a career outside the home
h. Economic downturns

Economic necessity is the major factor for the increasing number of females who enter the paid workforce. However, the increase of females in the workforce has had relatively little impact on "occupational sex segregation," which has been a characteristic of the labor market in the U.S. for decades. Such segregation restricts men from occupations in which they might be extremely productive, and it generally traps women into typically low paying, low status jobs. Table 1 presents employment in different occupation groups by sex. As presented, females are represented more often in clerical, service, and private household occupations than craft workers, skilled workers, or managers and administrators.

Occupational area segregation also leads to salary/earning differences. As presented in Table 2, women's earnings as a percent of men's earnings in 1981 were 59.2%. The closest that women come to men's earnings is in the service worker category at 71.1% of men's earnings. The gap in earnings between males and females has declined ~~from~~ 64% in 1956 to 59% in 1981.

Table 3 presents a more detailed analysis of selected occupations by sex by annual average from 1981. This table shows that females continue to dominate the traditional female occupations (e.g., nursing, elementary teacher, receptionist) and likewise males for traditional male occupations (e.g., engineer, physician, blue-collar supervisor).

The following are examples of nontraditional occupations for women:

Machinist
Tool and Die Maker
Printing Press Operator
Book Binder
Manufacturing Inspector
Truck Driver
Welder
Programmer
Bank Officer
Insurance Agent
Accountant
Buyer
Hotel Manager
Manager
Diesel Mechanic
Pest Controller
Funeral Director
Firefighter
Guard
Police Officer
Automobile Salesworker
Bricklayer
Cement Mason
Drywall Installer
Appliance Repair Worker
Waste Water Treatment Plant Operator
Electrician
Painter
Plasterer
Plumber
Roofer
Sheet-metal Worker
Air Traffic Controller

The following are examples of nontraditional occupations for men:

Secretaries
Food Service Worker
Elementary Teacher
Bookkeeper
Receptionist
Dental Assistant
Home Economics Teacher
Registered Nurse
Child Care Worker
Sales Clerk
Cosmetologist
Cashier
Nurse's Aide

VOCATIONAL EDUCATION ENROLLMENTS

In addition to apparent occupational discrimination by gender, there are equity concerns in vocational education programs. The following statistics show the enrollment in Wyoming Vocational Education programs by sex for the years 1980-1984.

As is presented in Table 5, very few females have been enrolled in trade and industrial education programs in Wyoming. Vocational agriculture also had few females enrolled. On the other hand the health occupations and office occupations have twice as many female students as male students. The other tables also show that in Wyoming females enroll in traditionally female-oriented vocational education programs. And likewise, more males enroll in traditionally male-oriented vocational education programs.

CAREER DEVELOPMENT

In our rapidly changing technological society, it is often difficult for students to make decisions about their future careers and the education required to prepare for the careers. Career development is defined as aspects of an individual's experience that are of relevance to personal choice, entry, and progress in educational, vocational, and avocational pursuits.

Our fast-paced way of life requires that students be able to have some skills in making decisions. While there are several decision-making models, a four-step model is presented for consideration in career decision-making. This model contains the "core" of the process of making decisions.

The first step is to understand the situation. Second, the problem must be defined. Third, the various alternatives must be identified. Fourth, the selection (decision) must be made after considering the alternatives.

A career decision based upon this model would be like this: A student understands that he/she is not sure about what to do after high school graduation. The problem is defined as "additional skills are necessary to get a decent job today." The alternatives found included "college, junior college, the military, trade schools, apprenticeship or other on-the-job training." Considering each of the alternatives against his/her picture of himself/herself, he/she finally decides that with his/her aptitudes, values and interests, he/she would be best served by a two year junior college program. But note, the decision was made only after following the four steps of the decision-making process.

There are several different situations where this model can be applied. The student above can also use it to decide the career to pursue, the course of study, which junior college, etc.

After decisions are made about education and careers, goals need to be set and plans developed to achieve the goals. Barriers to achieving our goals often surface. These barriers can include stereotypes and biases based on gender. However, barriers can be overcome with confidence and a positive attitude.

Sex Equity

Sex equity should be an integral component of career development. To make it such, students need sex fair information about careers and career options. This can be accomplished through resource materials, books, government publications, computer-based guidance programs, etc. While these types of resources are very helpful in assisting students in career selection and development, the lack of role models of each gender in career areas can hinder career development.

The lack of role models of employees in non-traditional occupations is a hinderance to sex-fair career development in Wyoming. The rural nature of the state, the great distances between places, and the limited breadth of the types of careers available do not facilitate access to adequate numbers of non-traditional role models. This obviously limits the use of non-traditional employee guest speakers or field trips that show non-traditional employees at work.

To overcome these barriers, vocational teachers need to develop a sex-fair attitude and project that attitude to others. They must be supportive of females or males who enter the classes that have historically served one sex. They must convey this support to parents, counselors, administrators, and employers. In fact, sex fair vocational education can demonstrate to employers that females can gain work skills and perform job tasks in traditional male occupations--likewise, males for traditional female occupations. This demonstration may be the single most important role of vocational education in eliminating sex-role stereotyping and sex bias.

Aptitudes

No two people are exactly alike. Everyone has different interests, desires, abilities, and aptitudes. Education, training, and employment should be based upon abilities and aptitudes rather than sex, race, or ethnic origin.

There are several ways to determine aptitudes. There are several occupational aptitude tests that can be administered to students. The results of these tests can assist students in identifying some of their aptitudes. However, paper and pencil tests alone can not give sufficient direction to students. They also need to "experience" work and work-related activities to fully clarify their interests and aptitudes. This is where vocational education can play another major role. Students can try out, through direct purposeful experience, job and work tasks.

Trying out work tasks can assist students and teachers in evaluating their abilities. Skills such as physical, mechanical, managerial, analytical, social, artistic, and clerical, can be evaluated. This assists students in the career decision-making process as they are able to base decisions on actual or simulated experiences.

CAREER CHOICE: A DEVELOPMENTAL PROCESS

A total vocational education program is one which incorporates a series of sequential experiences which lead to a visible end. This sequence of experiences can also be called "career development." It begins in the elementary school and continues through secondary school to post-secondary and adult education. A model is presented to graphically depict this career/vocational sequence. It includes four major components; awareness, exploration, orientation, and skill preparation.

AWARENESS

A basic foundation is laid during the early elementary years when students are provided with realistic and accurate occupational information covering a broad range of occupations. At this time, the students are provided the setting and opportunity to develop a self-awareness in terms of attitudes, interests, and abilities. Also, they are assisted in the development of decision-making skills.

EXPLORATION

During the later elementary years, students have the opportunity to explore occupations in a variety of fields and obtain career information regarding training requirements and opportunities. The career exploration helps students clarify their career goals so their plans for future preparation can be facilitated.

ORIENTATION

Occupational orientation continues at the ninth grade level. It is at this point that students should be able to tentatively identify one of the five broad occupational areas which will best match their career interests and goals. The occupational cluster areas include: Agricultural Occupations; Business, Marketing and Management Occupations; Home Economics Occupations; Health Occupations; and Industrial Occupations.

SKILL PREPARATION

Skill development courses offered in the eleventh and twelfth grades and above are based upon specific objectives as determined by local or area job-entry-level skill requirements. These courses may be provided through a variety of delivery systems such as within the local education area vocational center, community college, or state agency; or through a contract with a private school. Instruction is provided in school laboratories, cooperative education settings in the community, or extended campus facilities.

The following goals for programming at the various educational levels are presented for consideration.

GOALS FOR LEVEL K-6:

1. Increase child's understanding of his/her abilities.
2. Explore interests and aptitudes.
3. Develop positive self-image.
4. Relate school achievement and vocations.
5. Make student aware of advanced training and need for same.
6. Help student realize that all legitimate occupations are worthwhile.
7. Help child realize the abundance and variety of careers available.

GOALS FOR LEVEL 7-8:

1. Enhance child's self-awareness.
2. Help student to understand values, interests, abilities.
3. Help student understand decision-making process.
4. Make student aware of relationship between interests, aptitudes, values, and career choice.
5. Relate school work and career choice; relate school work to a career development theme.
6. Expose students to an abundance and variety of careers.

GOALS FOR LEVEL 9-10:

1. Provide opportunity for child's exploration of the attitude, interest, and personality factors necessary in certain career areas.
2. Make child aware that self-image will determine choice of work and way of life.
3. Improve performance of students in basic subject areas by making subject matter more understandable and applicable to the world of work.
4. Provide guidance for the purpose of assisting students in selecting occupational specialities for the eleventh and twelfth grade levels with the following options: intensive occupational preparation, or preparation and orientation for post-secondary occupational programs.
5. Develop habits and attitudes for successful employment performance.
6. Develop a positive self-image which will promote motivation for achievement.
7. Develop an awareness of the educational and career opportunities available.

8. Identify the career and educational decisions that are appropriate to the individual's level of maturity and development.
9. Become familiar with occupational classifications and clusters.
10. Make students aware of changing job patterns and need for careful planning with flexibility.
11. Make students aware of changing role of women in the world of work, and how this changing role affects all of us.
12. Give students basic employability skills for up-coming, part-time employment.
13. Make students aware of resources for investigating careers.
14. Develop a tentative occupational plan and a tentative career choice

GOALS FOR LEVEL 11-12:

1. Provide intensive preparation in a specific occupational area, in preparation for job entry and/or for further education.
2. Help student understand relationship of economics, psychology, sociology, to career choice.
3. Give student practice in researching careers.
4. Heighten employability skills for possible full-time employment.
5. Make student aware of factors contributing to success on the job.
6. Provide student with up-to-date information on the labor force.
7. Heighten decision-making skills.
8. Develop consumer competencies, whereby students will achieve sufficient economic understanding to make wise decisions as to the use of their resources.
9. Develop acceptable job attitudes.
10. Get work experience in a job situation.
11. Help student understand the organizational structure of the world of work.

GOALS FOR POST-HIGH SCHOOL:

1. Provide comprehensive guidance in preparation for employment and/or further education.
2. Assist student to make necessary educational and occupational adjustments caused by an expanding technology.
3. Provide instruction which leads to specialization in a particular occupational program.
4. Help student form suitable employer-employee relationships.
5. Learn skills for retraining or up-grading.

CAREER CLUSTERS

Careers are most often studied, explored, and prepared for in clusters. A "cluster" is a family of related careers. For example, the careers in construction are related and comprise a construction cluster.

The U.S. Department of Education has identified 15 career clusters. They include:

AGRI-BUSINESS & NATURAL RESOURCES

Conservation
Forestry & Logging
Fire Control
Saw Mill Parks
Land & Water Management
Game Preserves
Outdoor Recreation
Mining & Quarrying
Inspection & Regulatory
Research
Animal & Crop Production
Horticulture
Agricultural Supplies & Mechanic
Veterinarian

BUSINESS & OFFICE

Accountant
Bookkeeper
Systems Analysts
Computer Programmer
Secretary
Stenographer
Office Machine Operator
Clerk
Fiscal Manager

COMMUNICATION & MEDIA

Publishing
Journalism
Commercial Art
Photography
Sign Painting
Advertising
Broadcasting
Data Transmission
Telephone/Telegraph

CONSTRUCTION

Engineering
Architecture
Masonry
Interior Design
Heavy Equipment Operation
Utilities
Building Construction
Cabinetmaker
Electrician
Plumber

CONSUMER & HOMEMAKING-RELATED OCCUPATIONS

Food Production & Management
Food Demonstration
Dietetics
Garment Production
Apparel Alteration
Clothing Alteration
Dry Cleaning
Child Care
Social Welfare
Household Maintenance
Product Testing
Interior Decorating
Upholstering

ENVIRONMENT

Soil
Soil Management
Research & Experimentation
Air Pollution
Abatement & Control
Hazards Control
Waste Disposal
Pest & Varmint Control
Water Sanitation
Industrial Safety Engineering
Rural Development
Noise Abatement & Control
Resource Protection

HEALTH OCCUPATIONS

Medical Records
Medical Libraries
Medical Illustration & Photography
Community Health Maintenance
First Aid & Rescue Services
Dental Care
Pharmacy
Surgery
Nursing
Medical Technology

MARINE SCIENCE

Boat or Vessel Operation
Micro-Biology
Navigation
Marine Botany
Marine Biology
Commercial Fishing
Seafood Processing
Seafood Inspection
Seaweed Harvesting
Fish Hatching, Raising
Deep Water Diving

MARKETING & DISTRIBUTION

Retailing
Wholesaling
Mail Order Selling
Industrial Purchasing
Advertising
Display
Warehousing
Finance
Insurance

PUBLIC SERVICE

Taxation
Public Housing
Licensing
Customs & Immigration
Education
Transportation
Fire Service
Law Enforcement
Defense
Postal Operations
Public Utilities
Public Health
Employment Services
Social Welfare & Rehabilitation

TRANSPORTATION

Local Transit
Highway Transportation
Rail Transportation
Aviation
Spacecraft Transportation
Pipeline Transmission
Water Transportation

MANUFACTURING

Designer
Materials Handling
Assembly Line Operator
Quality Control
Packaging
Experimentation & Testing
Machine Operator

PERSONAL SERVICES

Weight Control
Massage
Cosmetology
Barbering
Mortuary Service
Theatrical & TV Makeup
Household Pet Services

ARTS & HUMANITIES

Painting
Sculpture
Musical Composition
Dance
Dramatic Arts
Stage Set Construction
Costume Design & Production
Filming
Creative Writing
Historian
Linguist

HOSPITALITY & RECREATION

Recreational Planning
Ski Area Operation
Marina Operation
Concession Operation
Equipment Leasing & Sales
Armed Forces Recreation
Preschool Play
Senior Citizen Centers
Church Recreation

TEACHER ACTIONS

Teachers and parents have responsibilities in reducing/eliminating sex-role stereotyping. The following suggestions are presented for consideration.

1. Be active in parent/teacher organizations and get to know the parents of your student. Be open and honest with parents in informing them about sex equity in education and employment.
2. Be supportive of students who seek education in non-traditional occupational areas.
3. Use posters, pamphlets, bulletin boards and display cases which show:

   A. Non-traditional workers (male and female).
   B. New roles for men and women.
   C. Accent on women in the work force, etc.

4. Use Educational Resources Association to provide nontraditional role models.
5. Discuss the issues of a woman as a boss or supervisor. "How would you feel working for a woman?"
6. Use lesson plans on Title IX or Sex Equity Legislation and/or Title VII Equal Employment Issues.
7. Discuss issues of social interaction of women and men on a job which had been totally male.
8. Talk with incoming students, when possible, make the point as the instructor that you welcome both male and female students.
9. Have discussions with parents at open houses on new work roles for students and new opportunities for training.
10. Work with employers and advisory councils in helping them become more aware of nontraditional job options and of hiring the nontraditional worker.
11. Plan ahead for how you will work with the nontraditional students.
12. Emphasize with students the changes men will need to be aware of as they interact more with female workers on the job.
13. Emphasize with students the importance of planning for job advancement.
14. Help students understand their rights and responsibilities on the job.
15. Check your curriculum for non-inclusive language, pictures and illustrations. Check:

    a. curriculum guides
    b. charts and graphs
    c. lesson plans
    d. posters/safety directions
    e. textbooks
    f. others
    g. films and other visuals

16. Have students practice using job titles which are inclusive. Let them compare the traditional with the new terminology.
17. Discuss the issue of the nontraditional student with your classes. See how the students feel about these issues.

    --"How would you feel about a girl in plumbing?"
    --"How would you feel about a male in child care?"

18. If your class has been traditionally all male or all female, make a special point of indicating to students and teachers that both male and female students are welcome and that you expect them to be in your class.
19. Use an aide who is nontraditional for your class.
20. Be positive in your attitude toward nontraditional students. Be supportive but do not cater to them.
21. Encourage your school to develop support groups for the nontraditional students in your building.
22. Think about the future, even if the world you see doesn't reflect all the changes in male and female roles--the world your students live in will! Help them plan for a changing society.
23. Prepare suggestions for positive ways of teaching from the present books until unstereotyped ones are available.
24. Seek out and recommend for purchase materials free of sex bias as they become available.
25. Examine all course titles and descriptions for gender implications and find positive substitutes.
26. Examine all curricula for any needed changes.
27. Develop list of local people who entered occupations not typical for their sex. Invite these persons to make presentations to classes.
28. Develop suggested list of reasons why each subject area might be attractive to both sexes.
29. Develop list of actual problems with students, parents, and employers that could arise, with suggested methods for solving or coping with them.
30. Give students opportunities to recognize and understand sex bias in general.
31. Discuss specific class activities, looking out for unconscious sex resegregation by either students or teacher.
32. Invite teachers who have already had sex desegregated classes to share their experiences.
33. Make public announcements and post notices to inform students and teachers that both males and females are not only allowed but welcomed in every course.
34. Give students opportunity to discuss changing work and family roles.
35. Give counselors a description of your field and give positive reasons why the nontraditional student should enter your program--list job opportunities, changes for advancement, etc.

TEACHERS AND PARENTS

Parents and students must have the facts concerning education and employment, and as teachers, you can make sure parents have the facts:

--That their daughters understand that they will probably be working for pay outside their homes for a significant portion of their lives.

--That their sons realize that, if they marry, they will probably be married to women working for pay outside their homes and that they will need to contribute to or be responsible for caring for children, for the home, and for family physical needs.

--That their daughters and sons recognize the variety and range of paid work which is available to them, and the duties, requirements, and pay which accompany various jobs.

--That their daughters and sons are aware of the educational programs which can help them to choose and prepare for rewarding work both outside and inside the home.

--That their daughters and sons know the costs that stereotyping can have on their lives and the ways that they can overcome stereotyping.

As teachers, you can make sure that parents know their children's rights:

--It is illegal for any person to be kept out of schools, classes or jobs because of her/his race, national origin, handicap, or sex, or to be treated or paid differently because of race, national origin, handicap, or sex once admitted to schools, classes, or jobs.

--Title VI of the Civil Rights Act makes it illegal for schools which receive federal funds to discriminate on the basis of race or national origin in the admission or treatment of students.

--Title IX of the Education Amendments of 1972 makes it illegal for schools which receive federal funds to discriminate on the basis of sex in the admission or treatment of students, or in most employment practices.

--Title VII of the Civil Rights Act makes it illegal for employers to discriminate on the basis of race, national origin, or sex in most employment practices.

--Section 504 of the Rehabilitation Act of 1973 makes it illegal for schools and employers receiving federal funds to discriminate on the basis of handicap in the admission or treatment of students, or in most employment practices.

-Their daughters and sons are entitled to receive fair consideration for admission to any education or job training program they select and for hiring in any job which they are qualified.

As teachers, you can inform parents how they can influence their children's schools. They can:

--Talk to their children's teachers to learn more about vocational education programs and efforts to eliminate discrimination and bias.

--Talk to their counselors and find out how counseling efforts help students explore the range of jobs and opportunities that are open to them.

--Talk to the school principal about their concern that discrimination and bias are eliminated.

--Talk to the school librarian to learn what efforts have been made to provide nonstereotyped books and career materials.

--Meet with members of the local advisory council on vocational education and ask them about programs that are being developed to eliminate discrimination and bias.

--Organize community and parent action groups to work with schools to provide equal opportunity.

As teachers, you can inform parents how to encourage their children's schools to:

--Help their children become aware of and explore new career choices.

--Provide their children with career counseling and career planning services.

--Ensure that their children are treated fairly and with equal opportunity for vocational education regardless of their sex or race.

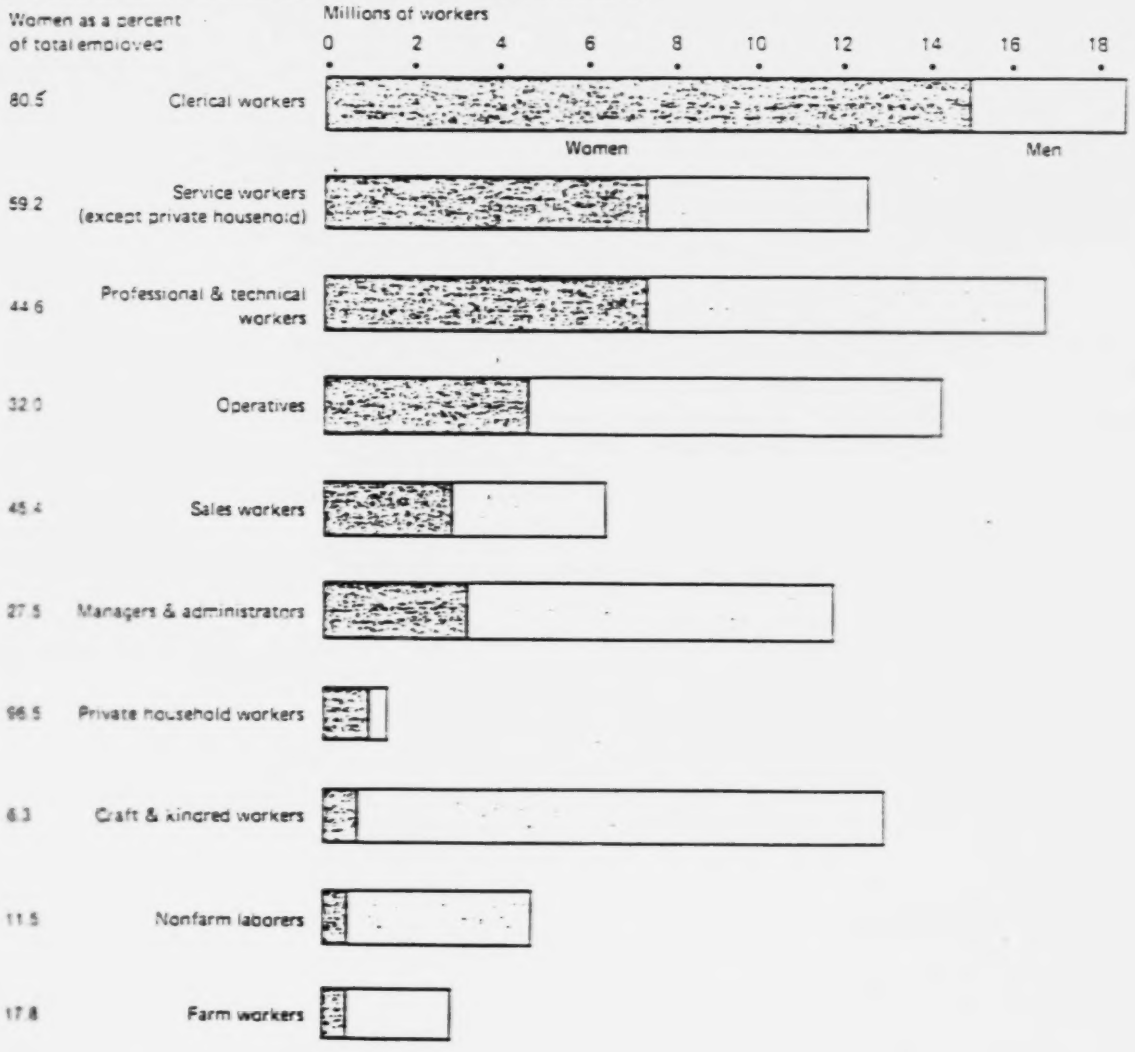
--Support their children when they choose nontraditional vocations.

TABLE 1

Chart II-1

Employment in different occupation groups varies by sex.

Major occupation groups of employed women and men—1981 annual average.



Source: U.S. Department of Labor, Bureau of Labor Statistics.

TABLE 2

Median hourly earnings of full- and part-time wage and salary workers, by sex and race, 1979

	All workers		Usually full time		Usually part time	
	Number (in thousands)	Median	Number (in thousands)	Median	Number (in thousands)	Median
Total						
Female	22,866	$3.66	14,780	$3.98	8,085	$3.21
Male	27,771	5.73	24,195	6.25	3,577	3.20
White						
Female	19,680	$3.66	12,359	$3.99	7,321	$3.23
Male	24,051	5.89	20,912	6.39	3,139	3.21
Black						
Female	2,717	$3.60	2,078	$3.88	638	$2.96
Male	3,241	5.03	2,900	5.27	341	3.04
Hispanic[1]						
Female	1,162	$3.45	878	$3.60	284	$3.18
Male	1,875	4.88	1,694	5.09	181	3.12

[1]Persons of Hispanic origin may be of any race. According to the 1970 census, 96 percent of the Hispanic population was racially classified as white.

Source: Unpublished data, U.S. Department of Labor, Bureau of Labor Statistics.

Table III-12

Median earnings of year-round full-time civilian workers, by occupation group and sex, 1981

(Persons 15 years of age and over)

Occupation group	Women	Men	Dollar gap	Women's earnings as a percent of men's	Percent men's earnings exceeded women's
Total	$12,001	$20,260	$ 8,259	59.2	68.8
Professional and technical workers	16,523	26,544	10,021	62.2	60.6
Managers and administrators	14,979	26,656	11,677	55.8	79.3
Sales workers	11,353	22,169	10,816	51.2	95.3
Clerical workers	11,703	17,310	5,607	67.6	47.9
Craft and kindred workers	13,212	20,659	7,447	64.0	56.4
Operatives, including transport	10,316	17,159	6,843	60.1	66.3
Laborers (except farm)	10,414	15,098	4,684	69.0	45.0
Service workers (except private household)	8,162	11,472	3,310	71.1	40.6

Source: *Current Population Reports*, P-60, No. 134 (Advance Report), U.S. Department of Commerce, Bureau of the Census.

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TABLE 3

Employed persons in selected occupations, by sex, annual averages, 1981

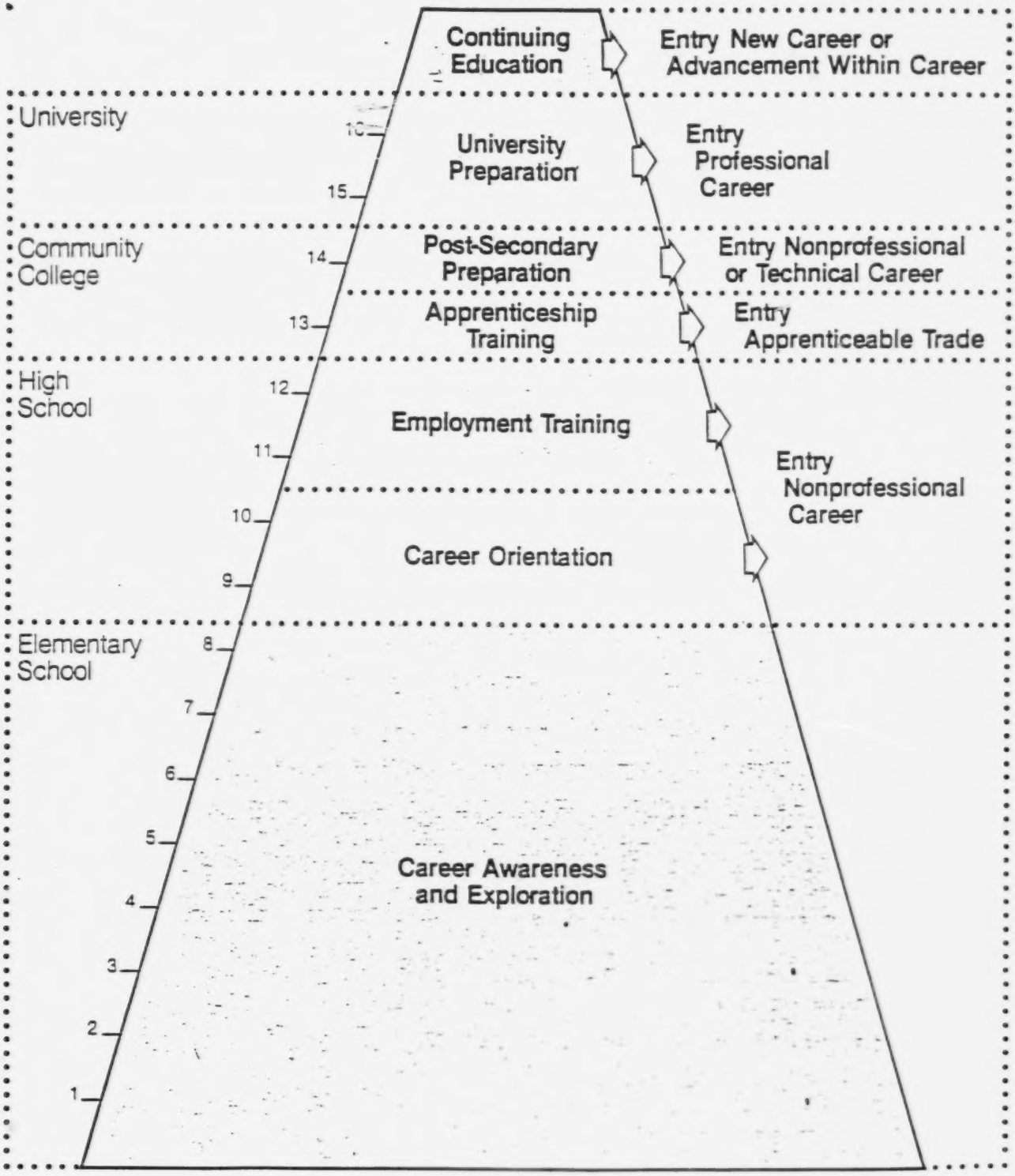
Occupation	Women			Men	
	Number (in thousands)	Percent distribution	As percent of total employment	Number (in thousands)	Percent distribution
Total	43,000	100.0	42.8	57,397	100.0
White-Collar Workers	**28,328**	**65.9**	**53.5**	**24,621**	**42.9**
Professional and technical workers	7,319	17.0	44.6	9,100	15.9
Accountants	434	1.0	38.5	692	1.2
Computer specialists	170	0.4	27.1	458	0.8
Librarians, archivists, and curators	159	0.4	82.8	33	0.1
Personnel and labor relations workers	220	0.5	49.9	221	0.4
Physicians	62	0.1	13.7	392	0.7
Registered nurses	1,296	3.0	96.8	44	0.1
Health technologists and technicians	465	1.1	72.3	178	0.3
Social workers	249	0.6	63.8	141	0.2
Teachers, college and university	206	0.5	35.2	380	0.7
Teachers (except college and university)	2,257	5.2	70.6	940	1.6
Elementary school teachers	1,180	2.7	83.6	232	0.4
Kindergarten and prekindergarten teachers	241	0.6	98.4	4	(')
Secondary school teachers	632	1.5	51.3	599	1.0
Engineering and science technicians	214	0.5	18.8	927	1.6
Writers, artists, and entertainers	553	1.3	39.8	834	1.5
Managers and administrators (except farm)	3,168	7.4	27.5	8,372	14.6
Bank officers and financial managers	261	0.6	37.5	435	0.8
Buyers and purchasing agents	167	0.4	35.1	309	0.5
Restaurant, cafeteria, and bar managers	293	0.7	40.3	434	0.8
Sales managers and department heads (retail trade)	139	0.3	40.2	206	0.4
School administrators	156	0.4	36.3	274	0.5
Sales workers	2,916	6.8	45.4	3,509	6.1
Hucksters and peddlers	135	0.3	79.4	35	0.1
Insurance agents, brokers, and underwriters	142	0.3	23.9	453	0.8
Real estate agents and brokers	280	0.7	49.8	282	0.5
Sales clerks (retail trade)	1,730	4.0	71.2	702	1.2
Clerical workers	14,938	34.7	80.5	3,626	6.3
Bank tellers	532	1.2	93.5	37	0.1
Billing clerks	135	0.3	88.2	18	(')
Bookkeepers	1,786	4.2	91.1	175	0.3
Cashiers	1,431	3.3	86.2	229	0.4
Counter clerks (except food)	275	0.6	76.4	85	0.1
Estimators and investigators (n.e.c.)	295	0.7	54.6	245	0.4
File clerks	264	0.6	83.8	51	0.1
Computer and peripheral equipment operators	360	0.8	63.8	204	0.4
Keypunch operators	232	0.5	93.5	15	(')
Payroll and timekeeping clerks	187	0.4	81.0	44	0.1
Postal clerks	102	0.2	37.9	167	0.3
Receptionists	657	1.5	97.3	17	(')
Secretaries	3,883	9.0	99.1	34	0.1
Shipping and receiving clerks	118	0.3	22.5	406	0.7
Statistical clerks	297	0.7	80.3	73	0.1
Stock clerks and storekeepers	184	0.4	34.8	344	0.6
Teachers aides (except school monitors)	354	0.8	92.9	27	(')
Telephone operators	286	0.7	92.9	22	(')
Typists	993	2.3	96.3	38	0.1

Employed persons in selected occupations, by sex, annual averages, 1981

Occupation	Women			Men	
	Number (in thousands)	Percent distribution	As percent of total employment	Number (in thousands)	Percent distribution
Blue-Collar Workers	**5,815**	**13.5**	**18.6**	**25,446**	**44.3**
Craft and kindred workers	802	1.9	6.3	11,859	20.7
Blue-collar supervisors	205	0.5	11.3	1,611	2.8
Printing craft workers	100	0.2	24.9	302	0.5
Operatives (including transport)	4,499	10.5	32.1	9,517	16.6
Assemblers	611	1.4	52.4	556	1.0
Checkers, examiners and inspectors (manufacturing)	430	1.0	53.8	369	0.6
Clothes ironers and pressers	95	0.2	80.5	23	(*)
Dressmakers and seamstresses (except factory)	114	0.3	97.4	3	(*)
Laundry and dry cleaning operators (n.e.c.)	129	0.3	66.5	66	0.1
Packers and wrappers	372	0.9	63.2	217	0.4
Sewers and stitchers	775	* 9	96.0	32	0.1
Textile operatives	183	0.4	61.0	116	0.2
Bus drivers	170	0.4	47.2	190	0.3
Nonfarm laborers	527	1.2	11.5	4,056	7.1
Stockhandlers	244	0.6	24.6	749	1.3
Service Workers	**8,342**	**19.4**	**62.1**	**5,097**	**8.9**
Private household workers	1,010	2.3	96.5	38	1.0
Child care workers	440	1.0	97.6	11	(*)
Private household cleaners and servants	445	1.0	95.1	22	(*)
Service workers (except private household)	7,332	17.1	59.2	5,059	8.8
Cleaning service workers	961	2.2	38.6	1,528	2.7
Building interior cleaners	528	1.2	55.3	427	0.7
Lodging quarters cleaners	175	0.4	97.2	5	(*)
Janitors and sextons	258	0.6	19.1	1,096	1.9
Food service workers	3,101	7.2	66.2	1,581	2.8
Bartenders	149	0.3	47.3	166	0.3
Cooks	723	1.7	51.9	670	1.2
Dishwashers	73	0.2	28.5	183	0.3
Food counter and fountain workers	391	0.9	83.7	77	0.1
Waiters, waitresses, and helpers	1,363	3.1	80.1	338	0.6
Health service workers	1,780	4.1	89.2	215	0.4
Dental assistants	139	0.3	97.2	4	(*)
Health aides and trainees (excluding nursing)	261	0.6	84.2	48	0.1
Nursing aides, orderlies, and attendants	979	2.3	86.6	152	0.3
Practical nurses	394	0.9	97.8	10	(*)
Personal service workers	1,342	3.1	76.0	424	0.7
Child care workers	407	0.9	95.5	19	(*)
Hairdressers and cosmetologists	515	1.2	89.3	62	0.1
Farm Workers	**489**	**1.1**	**17.8**	**2,260**	**3.9**
Farmers and farm managers	168	0.4	11.3	1,317	2.3
Farm laborers and supervisors	322	0.7	25.5	943	1.6
Farm laborers (wage workers)	154	0.4	15.9	815	1.4
Farm laborers (unpaid family workers)	165	0.4	65.0	89	0.2

* Number too small for reliable estimate.

Source: *Employment and Earnings*, March 1982, U.S. Department of Labor, Bureau of Labor Statistics.


Continuing Education
Entry New Career or Advancement Within Career
University
University Preparation
Entry Professional Career
Community College
Post-Secondary Preparation
Entry Nonprofessional or Technical Career
Apprenticeship Training
Entry Apprenticeable Trade
High School
Employment Training
Entry Nonprofessional Career
Career Orientation
Elementary School
Career Awareness and Exploration
16
15
14
13
12
11
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1

TABLE 6

CONSUMER & HOMEMAKING, INDUSTRIAL ARTS & SPECIAL PROGRAMS*

9th - 12th Grades

Vocational Education Area		1979 - 1980		1980 - 1981		1981 - 1982		1982 - 1983		1983 - 1984	
		Enroll-ment	%	Enroll-ment	%	Enroll-ment	%	Enroll-ment	%	Enroll-ment	%
Consumer and Homemaking	Total	9,225		12,964		13,126		6,214		5,948	
	Males	2,219	24	3,490	27	3,654	28	1,454	23	1,470	25
	Females	7,006	76	9,474	73	9,472	72	4,760	77	4,478	75
Industrial Arts	Total	12,274		13,760		15,705		10,522		9,256	
	Males	10,516	86	11,696	85	13,231	84	9,374	89	8,249	89
	Females	1,758	14	2,064	15	2,474	16	1,148	11	1,007	11
Special Programs	Total	616		158		231		441		795	
	Males	329	53	78	49	126	55	199	45	348	44
	Females	287	47	80	51	105	45	242	55	447	56
TOTAL ENROLLMENT		22,115		26,882		29,062		17,177		15,999	
	Males	13,064	59	15,264	57	17,011	59	11,027	64	10,067	63
	Females	9,051	41	11,618	43	12,051	41	6,150	36	5,932	37

*Duplicate count from State Vocational Education Foundation application forms

APPENDIX C

Participant List

Kay Ann Sexton, Evanston

Cheryl Slavens, Evanston

Linda Durkin, Evanston

David Lemie, Evanston

Phillip Ferguson, Evanston

Sue Cannon, Evanston

Alayne Matthews, Evanston

Doris Woodbury, Evanston

Irene Shankula, Evanston

Ray Shankula, Evanston

Daine Galloway, Evanston

Box Fry, Evanston

Don Hill, Torrington

Virginia Reed, Gillette

Deanne Gould, Upton

Kaye Ward, Worland

Patty Johnson, Mills

Ellie Noonan, Rawlins

Nancy Ingrum, Casper

Donna Allen, Sundance

WY 8513301

SEP 24 1986

PROJECT FINAL REPORT

TITLE OF PROJECT:	Training Vocational Teacher to Work with Parents to Reduce Sex Bias and Sex Role Stereotyping in Vocational Education
APPLICANT ORGANIZATION:	Department of Vocational Education College of Education University of Wyoming Laramie, WY 82071
PRINCIPAL INVESTIGATOR:	Thomas L. Erekson, Head Department of Vocational Education College of Education University of Wyoming Laramie, WY 82071 (307) 766-3274
DURATION OF PROJECT:	March 1, 1985 - June 30, 1985
FUNDS REQUESTED:	$7,000.00

OE 045066

FINAL REPORT

Training Vocational Teacher to Work with Parents to Reduce Sex Bias and Sex Role Stereotyping in Vocational Education

GOALS OF THE PROJECT

An emerging purpose for federal involvement in vocational education has been to reduce sex role stereotyping and sex bias in occupations and the vocational training that leads to those occupations. This federal purpose was specified with enactment of Public Law 94-482 (The Education Amendments of 1976, Title II - Vocational Education) with specific provisions for states to designate a state level administrator for sex equity.

While much has happened to reduce/eliminate sex bias since the enactment of PL 94-482, many of the occupations that have traditionally employed females continue to predominantly employ females, and likewise for males. It has been difficult to break down the societal barriers and stereotypes concerning sex roles for specific occupations. However, recent research reports have stated that "parents" of high school students are the most influential individuals in the development of the future educational and career plans for their children. A comprehensive review of the research was done as a part of this project and a summary of the research is included in Appendix A. In addition, an ERIC Clearinghouse on Adult, Career and Vocational Education Fact Sheet reported that in rural areas "parents have an enormous influence on the career choice of their children as compared to urban areas."

Therefore, to effectively change the traditional sex role stereotypes and sex biases in occupations and the training for those occupations, vocational teachers need to work with parents. This is particularly true in rural states like Wyoming. The purpose for this project was to develop a handbook for vocational teachers to effectively work with parents in reducing sex biases and sex role stereotyping in occupations and to inservice teachers in the use of the handbook and its strategies.

Objectives of the Project

The objectives for this project were:

1. By April 1, 1985, conduct a comprehensive review of the literature in the areas of sex equity and teacher/parent interactions.
2. By April 30, 1985, develop a handbook for vocational teachers in Wyoming that focuses on effective strategies and techniques for working with parents in rural areas to reduce sex role stereotyping and sex bias in occupations and training with the intent of assisting parents in assisting their children to secure appropriate education and training in occupational employment of their choice.
3. By May 15, 1985, duplicate copies of the handbook for dissemination to vocational teachers in Wyoming.
4. By June 15, 1985, conduct three regional workshops for vocational teachers, counselors, school administrators and others to train them in effective techniques and strategies for working with parents to reduce sex role stereotyping and sex bias in vocational education and to disseminate copies

of the handbook.

5. By June 30, 1985, complete a project final report and submit remaining copies to SDE for further dissemination.

METHODS AND PROCEDURES

The methods and procedures for the successful completion of this project included the following tasks:

Conduct Literature Review

A project research assistant, Priscilla Young, conducted a comprehensive literature review of research related to sex role stereotyping, sex bias, parent-child interaction, and parent-teacher interaction. The major research findings from the literature review are reported in Appendix A.

Develop Handbook

Based upon the literature review, a handbook was compiled to assist teachers in working with parents in reducing the effects of sex role stereotyping and sex bias in vocational education and subsequent employment. A copy of the handbook, entitled "Parents as Partners in Reducing Sex-Role Stereotypes in Vocational Education, is included in Appendix B.

Plan and Advertise Inservice Workshops

The proposal indicated that three inservice workshops were to be planned by project staff in consultation with SDE personnel to provide an effective means for inservicing local educational agency personnel in working with parents to reduce sex role stereotyping and sex bias. The project staff planned and advertised three workshops, however, only one person registered

for two of the workshops. Therefore, in effect only one workshop was conducted.

The three workshops were advertised through a flyer that was mailed to all vocational teachers, school principals, guidance counselors, and community college vocational education personnel. Workshops scheduled to be held at:

- Western Wyoming College, Rock Springs, Wyoming.
- Holiday Inn, Douglas, Wyoming.
- Thermopolis, Wyoming (during WVA)

Conduct Inservice Workshop

A workshop was conducted in Thermopolis, Wyoming, during the Wyoming Vocational Association Summer Conference. Workshop presenters included Priscilla Young (Research Assistant), Robert Higginson (UW), and Thomas Erekson (UW). A list of those in attendance is included in Appendix C.

It should be noted that additional dissemination of findings of this project were conducted by project staff. A presentation covering project content was made at the U. S. Department of Education, Office for Civil Rights, Region VIII Vocational Education Conference, Vail, Colorado, September 19, 1986.

Prepare Project Final Report

The project final report was prepared by the project director and submitted to SDE.

PROBLEMS AND/OR DEPARTURES FROM THE PROPOSED PROJECT

The major departure from the original proposal for this project was the delivery of one workshop instead of the three originally proposed. This did not affect the outcome of the

project as the workshop was well attended.

OUTCOMES

The outcomes of this project were an inservice workshop, a literature review summary (Appendix A) and a handbook (Appendix B). The workshop centered around the Handbook that was prepared by project staff.

POPULATION TO BE SERVED

The target population for this project included vocational education teachers, guidance counselors, school administrators, and community college vocational education personnel. Names the participants are included in Appendix C.

PRODUCTS

The products produced by this project included the literature review summary (Appendix A) and the handbook (Appendix B).

CONCLUSIONS

1. Parents are the most influential people in the future educational and career plans of their children.
2. Vocational education personnel must work with parents to effectively reduce/eliminate sex bias and sex role stereotyping in vocational education and subsequent employment.

RECOMMENDATIONS

1. Parents as partners in reducing sex bias and sex role stereotyping workshops should continue to be conducted at additional locations in Wyoming.

2. University teacher education programs should include coursework in family relationships as part of teacher education programs for future teachers.

APPENDIX A

Literature Review Summary

APPENDIX B

Parents as Partners Handbook